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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,255

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Friedrich Arnold

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EXAMINER

KOCA, HUSEYIN

ART UNIT

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3744

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,255	Applicant(s) ARNOLD ET AL.	
	Examiner HUSEYIN KOCA	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-32 is/are pending in the application.
- 4a) Of the above claim(s) 25, 26 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-24 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13, 15, 17, 19, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones (2,923,786).

In regard to claim 13, Jones teaches forming a unit (combination of 13 and 15) from a temperature sensitive element (15) and a thermal buffer liquid in a substantially transparent container (13) (Fig. 1); placing the unit container at a site to be monitored inside the refrigerator (Fig. 1); visually observing a temperature variable property of said temperature sensitive element to determine if the temperature in the refrigerator is at, below or above a predetermined temperature range (Fig. 1; Fig. 3; C-1, L-63-73; C-2, L-1-2).

In regard to claim 15, Jones teaches forming said thermal buffer liquid from water (C-1, L-60-61).

In regard to claim 17, Jones teaches a unit comprising a container (13); a thermal buffer liquid in said container; and a temperature sensitive element (15) in thermal contact with said buffer liquid (Fig. 1; C-1, L-49-72).

In regard to claim 19, Jones teaches that the temperature sensitive element (15) is located inside said container (13) and can swim in said buffer liquid (Fig. 1).

In regard to claim 27, Jones teaches a body (15) for thermal contact with the buffer liquid; the body (15) immersed to swim in the buffer liquid; and the body (15) has different substantially discrete values of a property which can be visually observed of at least one of above or below a temperature limit to be monitored (Fig. 1; C-1, L-49-72; C-2, L-1-2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 14, 18, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (2,923,786).

In regard to claim 14, Jones teaches most of the limitations of the claim but does not explicitly teach selecting the quantity of thermal buffer so that temperature equalization of the unit and the refrigerator requires at least about one hour. However, Jones teaches that the container is filled with water which will assume substantially the same temperature as the material in the containers (C-1, L-55-59). One having ordinary skill in the art would know how to adjust the equalization temperature by the quantity of the liquid through experimental procedures. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the quantity of thermal buffer so that temperature equalization of the unit and the refrigerator requires at least about one hour in order advantageously give more precise temperature readings regarding to the articles in the refrigerator.

In regard to claim 18, Jones teaches a container (13) but does not explicitly teach the capacity of the container. Since the containers come in variety of sizes and capacities, than it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a container capacity in the range of about fifty (50) to two hundred and fifty (250) cubic meters for the suitability of the experimental procedure in order to advantageously adjust the temperature equalization time to desired level.

In regard to claim 31, Jones teaches most of the limitations of the claim but does not explicitly teach that the temperature sensitive element is in the form of a fish. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the body of the temperature sensitive element in the form of a fish in

order to advantageously achieve a device that is capable of floating in water or submerge under water while eliminating or reducing drag force on the device. The specification of this application also states that the form of the temperature sensitive element can be any shape (page 6, lines 31-32), and thus, there is no criticality in the shape of the temperature sensitive element.

6. Claims 16, 20-24, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (2,923,786), and further in view of Witonsky et al. (2003/0147450).

In regard to claim 16, Jones teaches most of the limitations of the claim but do not explicitly teach that the temperature dependent variable property of the temperature sensitive element without using any external energy supply. Witonsky et al. teach that the temperature dependent variable property of the temperature sensitive element (18) without using any external energy supply (Fig. 1; 0022, lines 5-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Jones system so that it temperature dependent variable property of the temperature sensitive element does not use any external energy supply as taught by Witonsky et al. in order to advantageously eliminate the use of electricity to save money and also avoid air passages in the refrigerator by eliminating use of wires to increase the efficiency of the refrigerator.

In regard to claim 20, Witonsky et al. teach that the temperature sensitive element has different substantially discrete values of a property which can be visually

observed of at least one of above or below a temperature limit to be monitored (Fig. 2; 0022, lines 5-9).

In regard to claim 21, Witonsky et al. teach the property changes its value in a temperature range of about 7 and 10 degrees Celsius above the temperature limit (Fig. 2).

In regard to claim 22, Witonsky et al. teach that the property is the color of at least one portion of the temperature sensitive element (0022, lines 6-9).

In regard to claim 23, Witonsky et al. teach that the temperature sensitive element has a plurality of separate portions with different properties (Fig. 2; 0022, lines 5-9; 0032, lines 9-14).

In regard to claim 24, Witonsky et al. teach that the separate portions with different properties are separate colors with different temperature limits for said property changes (Fig. 2; 0022, lines 5-9; 0032, lines 9-14).

In regard to claim 28, see claim 22.

In regard to claim 29, see claim 23.

In regard to claim 30, see claim 24.

Response to Arguments

7. Applicant's arguments filed 12/17/2007 have been fully considered but they are not persuasive.

1. Applicant argues that Jones fails to anticipate or render obvious a step of visually observing a temperature variable property of the temperature sensitive element to determine temperature conditions in regards to rejection of claims 13, 15, 17, 19, and 27.

In response, Examiner strongly disagrees. At first, Examiner would like to point out that claims 17 and 19 do not require this limitation. Regarding to claims 13, 15, and 27, Jones clearly teaches visually observing a temperature variable property of the temperature sensitive element to determine temperature conditions in Fig. 1; Fig. 3; C-2, L-63-73; and C-2, L-1-2.

2. Applicant argues that the concept of having the sensing device which is readily observable through a transparent wall of a container resident in a refrigerator without disturbing the contents of the container is not suggested by Witonsky et al. alone or in combination with Jones.

In response, Examiner strongly disagrees. Since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention. The substitution of one known element (dial thermometer) for another (temperature sensing strip) would have been obvious to one of ordinary skill in the art at the time of the invention since the substitution will yield predictable results.

Remarks

8. Examiner has cited particular paragraphs, figures, columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUSEYIN KOCA whose telephone number is (571)272-3048. The examiner can normally be reached on Monday - Friday 9:00AM to 4:00PM.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler or Frantz Jules can be reached on (571) 272-4834 or (571) 272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HK/

/Cheryl J. Tyler/
Supervisory Patent Examiner, Art Unit 3744